

Title (en)  
Double-fan turbomachine

Title (de)  
Strömungsmaschine mit Doppelgebläse

Title (fr)  
Turbomachine a double soufflante

Publication  
**EP 2045460 B2 20210113 (FR)**

Application  
**EP 08157970 A 20080610**

Priority  
FR 0704648 A 20070628

Abstract (en)  
[origin: US2009000273A1] A twin fan turbomachine with two contrarotating fans, one upstream and one downstream, driven by two contrarotating coaxial shafts each of which connects one fan impeller to at least one low-pressure turbine impeller located downstream, the downstream fan impeller being connected by its downstream part to its drive shaft.

IPC 8 full level  
**F01D 25/18** (2006.01); **F01D 25/16** (2006.01); **F02K 3/072** (2006.01)

CPC (source: EP US)  
**F01D 25/16** (2013.01 - EP US); **F01D 25/18** (2013.01 - EP US); **F02K 3/072** (2013.01 - EP US); **F05D 2220/326** (2013.01 - EP US); **F05D 2220/327** (2013.01 - EP US); **F05D 2260/96** (2013.01 - EP US)

Citation (opposition)  
Opponent :

- GB 2129502 A 19840516 - GEN ELECTRIC
- US 7614210 B2 20091110 - POWELL BRANDON FLOWERS [US], et al
- US 3903690 A 19750909 - JONES CARMEN B
- DE 102005018140 A1 20061102 - MTU AERO ENGINES GMBH [DE]
- DE 3933776 A1 19910418 - MTU MUENCHEN GMBH [DE]

Designated contracting state (EPC)  
DE FR GB

DOCDB simple family (publication)  
**FR 2918120 A1 20090102; FR 2918120 B1 20091002**; CA 2635632 A1 20081228; CA 2635632 C 20150623; EP 2045460 A2 20090408; EP 2045460 A3 20100929; EP 2045460 B1 20170920; EP 2045460 B2 20210113; JP 2009008083 A 20090115; JP 5459988 B2 20140402; RU 2008126328 A 20100110; RU 2486361 C2 20130627; US 2009000273 A1 20090101; US 8225593 B2 20120724

DOCDB simple family (application)  
**FR 0704648 A 20070628**; CA 2635632 A 20080626; EP 08157970 A 20080610; JP 2008166888 A 20080626; RU 2008126328 A 20080627; US 16350408 A 20080627